Serial No. (new); Filed: 3/25/2004 Inventor: Naoki HASEGAWA Attorney Docket No. 20-137 Bruce Arnold (703) 759-2991 Sheet 1 of 12

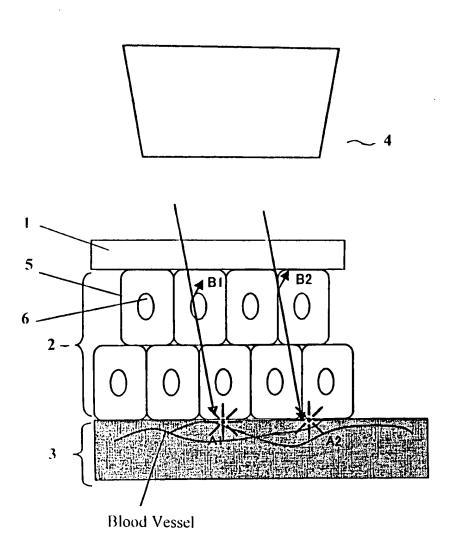


Fig. 1

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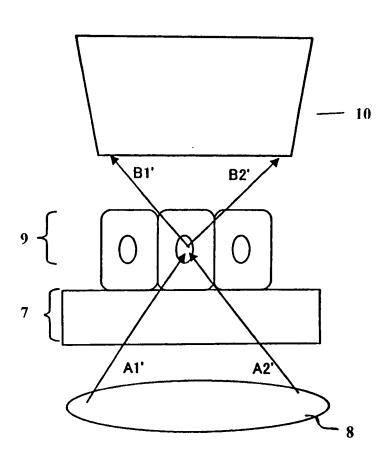


Fig. 2

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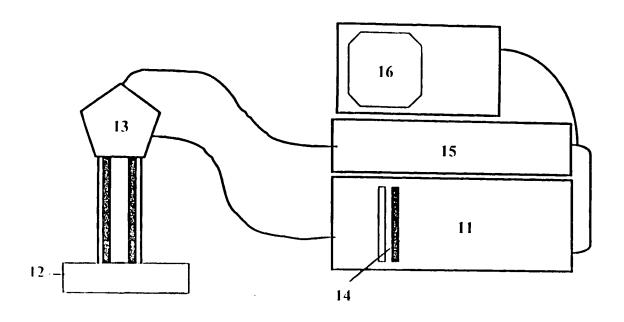


Fig. 3

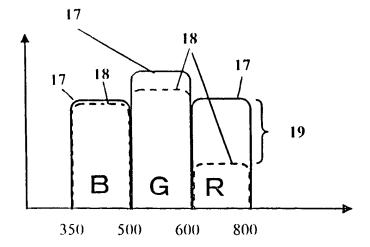


Fig. 4

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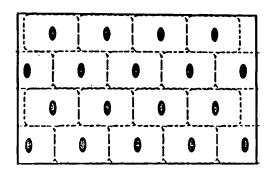


Fig. 5

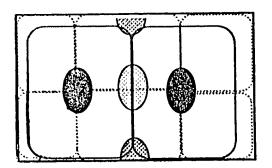


Fig. 6

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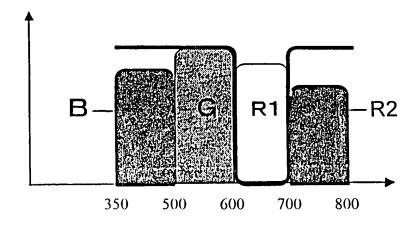


Fig. 7

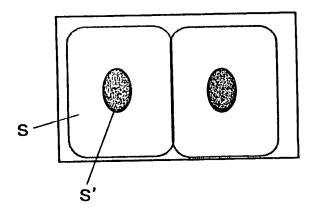


Fig. 8

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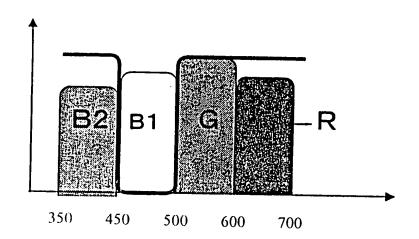
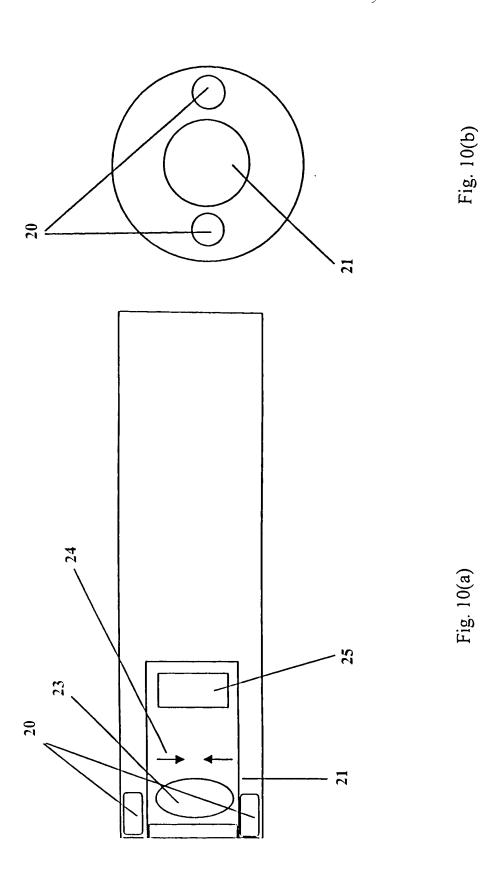


Fig. 9

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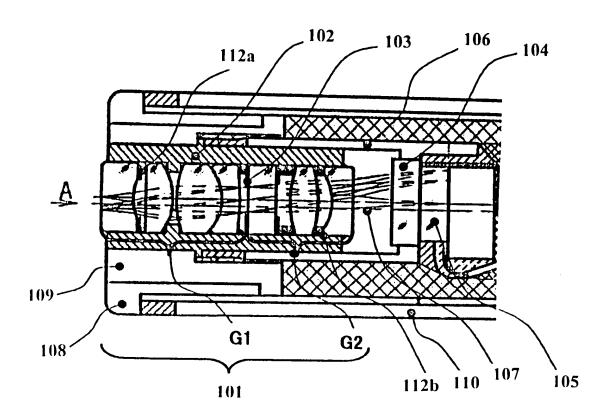


Fig. 11(a)

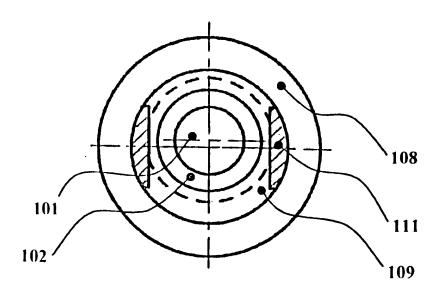
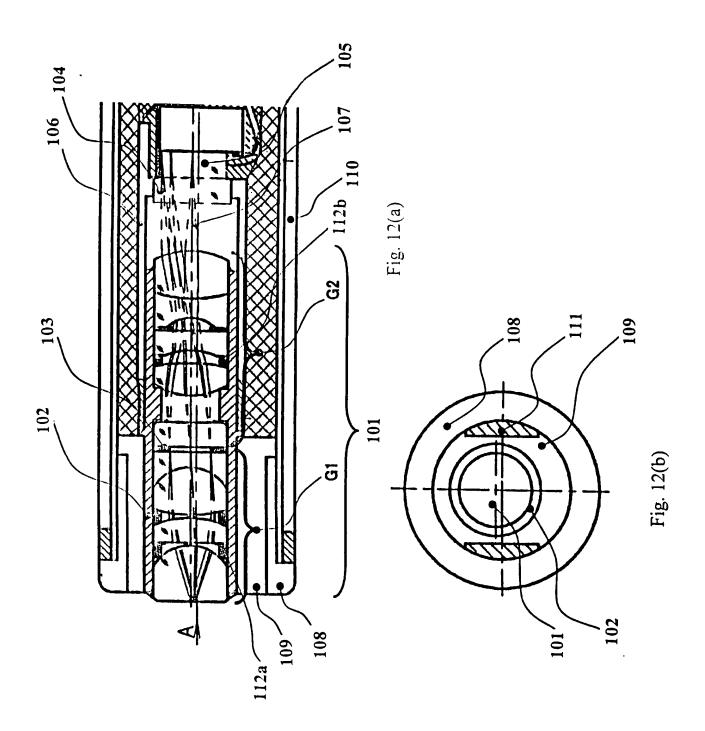


Fig. 11(b)

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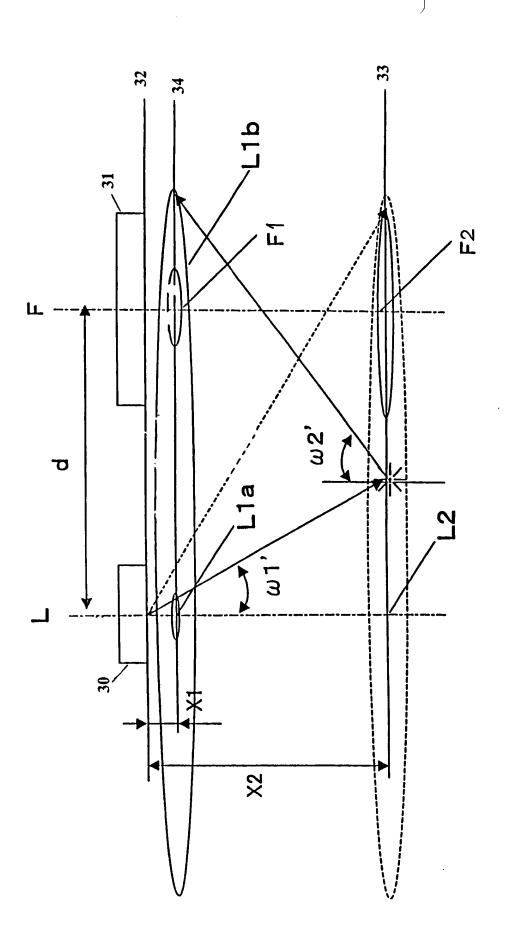


Fig. 13

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PRE-TREATMENT

detect suspicious region using a conventional endoscope

deliver coloring agent using a conventional endoscope

selectively stain cell parts due to differences in time to intake / excrete a coloring agent

guide magnifying endoscope to suspicious region

Fig. 14



CELL VISUALIZATION

emit illumination light having selected wavelengths

using wavelength band T2, visualize cells due to difference in absorbency

using wavelength band T1, cut off data at depths not targeted



ABNORMAL CELL DIAGNOSIS

display several tens to several hundreds of cell nuclei

display several cell nuclei and cell walls

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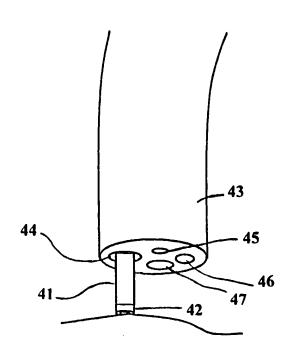


Fig. 15